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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,713	09/28/2001	Marc Petit-Huguenin	PX8S.265PA	6397

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EXAMINER	
NG, CHRISTINE Y	
ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,713	PETIT-HUGUENIN ET AL.	
	Examiner	Art Unit	
	Christine Ng	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☒ Claim(s) *15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/19/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 7, 13 and 14 are objected to because of the following informalities:

a) In claim 1 line 12, insert --to-- after "adapted".

b) In claim 7 line 11, insert --to-- after "adapted".

c) There are two claim 13's.

d) In claim 14 line 3, insert -- . -- after "calls"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,674,745 to Schuster et al.

Schuster et al disclose in Figure 1 a method of sharing resources of a broadband telephony system, the method comprising:

Registering with a registrar database (AMS 40) information from a plurality of user-provided gateways (ITG 18,20), each gateway coupled to a broadband data network (IP network 19) and one of a plurality of regional telephone networks (PSTN

22,24), and each of the plurality of regional telephone networks coupled to more than one gateway (each PSTN is indirectly coupled to both ITG's through IP network). Refer to Column 4, lines 13-22.

Storing in the registrar database correlation information associating each of a plurality of audio interfaces (devices 10,12,14,16) and each gateway with one of the plurality of regional telephone networks. Each gateway ITG is associated with a PSTN or a PSTN telephone company. The AMS indicates for each known telephone number of a device 10,12,14,16 the IP address of the ITG to which calls placed to that telephone number should be routed. Refer to Column 6, lines 27-35 and Column7, lines 45-59.

Exchanging with a plurality of other users, use of one user-provided gateway (originating ITG 18) as a remote network-terminating gateway for access to the registrar database and use of other user-provided gateways (destination ITG 20) as remote terminating gateways. An originating ITG accesses the registrar database (AMS 40) to obtain the destination ITG IP address in order to route the call over the IP network. The destination ITP serves as a gateway to the destination PSTN. Refer to Column 2, lines 5-31 and Column 4, lines 13-22.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,477,164 to Vargo et al in view of U.S. Patent No. 6,873,616 to Fedyk et al.

Referring to claim 1, Vargo et al disclose in Figure 1 a broadband telephony system, comprising:

A plurality of remote endpoint devices (transmux 124,126,134,136) coupled to a broadband data network (Internet network 132).

A plurality of remote PSTNS (PSTN 106,108) coupled between the plurality of remote endpoint devices and a plurality of remote audio interfaces (gateway 114,116,128,130), each remote endpoint device being coupled to one remote PSTN (indirectly through gateway), each remote PSTN being coupled to more than one remote endpoint device (indirectly through gateway and TCP/IP link 122), each remote PSTN being coupled to at least one remote audio interface (via voice lines 118,120), and each remote audio interface being coupled to one remote PSTN (via voice lines 118,120). Refer to Column 3, line 31 to Column 4, line 5.

An originating endpoint device (transmux 124) coupled between the broadband data network (Internet network 132) and a local audio interface (originating gateway 114) adapted to communicate an audio signal, the originating endpoint device adapted to select a destination audio interface (destination gateway 116) for delivery of the audio signal, the destination audio interface being one of the plurality of remote audio interfaces. As shown in Figure 4, originating transmux 124 appends to each subpacket

a destination gateway address 306. Refer to Column 4, lines 6-44 and Column 5, lines 22-28.

A database (Figure 6, hashing table 606) coupled to the broadband data network (through transmux) and adapted to determine a path for the audio signal from the originating endpoint device (transmux 124) to the destination audio interface (destination gateway 116) by correlating each remote audio interface with one of the plurality of remote PSTNS, and correlating each of the plurality of remote endpoint devices with one of the plurality of remote PSTNS. Each remote audio interface (gateway) and endpoint device (transmux) is associated with a source or destination PSTN. Refer to Column 4, lines 6-44. A hashing table 606 holds each of the transmux voice packets 144, each transmux voice packet 144 being bound for a different destination transmux 126. As shown in Figure 4, the originating transmux sends transmux packets comprising voice data 305, a sequence number 303, a destination PSTN address 204, and a destination gateway address 306. Refer to Column 5, lines 22-28 and Column 6, lines 24-34.

Vargo et al does not disclose that that database determines an *optimized* path.

Fedyk et al disclose that an exit gateway (Figure 1, G1) connected to a source end point (Figure 1, SEP 12) stores a database (Figure 2b). Each entry of the database identifies a cost associated with reaching different destinations through different gateways. The processor of the database selects the gateway through which a selected destination can be reached at the lowest cost. Refer to Column 2, lines 24-26; Column 4, line 31 to Column 5, line 7; and Column 5, lines 46-67. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to include that database determines an *optimized* path; the motivation being in order to choose the most optimal path to the destination, thereby saving resources such as bandwidth or cost and increasing system efficiency by choosing the fastest route with the least number of hops.

Referring to claim 2, Vargo et al disclose that the optimized path includes a destination endpoint device (transmux 124) wherein the destination endpoint device is one of the plurality of remote endpoint devices (transmux 124,126,134,136) being correlated to a destination PSTN (PSTN 108), the destination PSTN being one of the plurality of remote PSTNs (PSTNs 106,108) being uniquely correlated to the destination audio interface (gateway 116). Refer to the rejection of claim 1.

Referring to claim 3, Vargo et al do not disclose that the optimized path is a cost-optimized path.

Fedyk et al disclose that an exit gateway (Figure 1, G1) connected to a source end point (Figure 1, SEP 12) stores a database (Figure 2b). Each entry of the database identifies a cost associated with reaching different destinations through different gateways. The processor of the database selects the gateway through which the destination can be reached at the lowest cost. Refer to Column 2, lines 24-26; Column 4, line 31 to Column 5, line 7; and Column 5, lines 46-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the optimized path is a cost-optimized path; the motivation being in order to choose the cheapest path to save money and bandwidth usage.

Referring to claim 4, Vargo et al does not disclose that the optimized path includes a pre-defined path portion.

Fedyk et al disclose that an exit gateway (Figure 1, G1) connected to a source end point (Figure 1, SEP 12) stores a database (Figure 2b). Each entry of the database identifies a cost associated with reaching different destinations through different gateways. The processor of the database selects the gateway through which a selected destination can be reached at the lowest cost. An exit gateway G1 is given two possible pre-defined paths (through gateways G3 or G7) to reach a destination (B1, C1, D1, D2). Refer to Column 2, lines 24-26; Column 4, line 31 to Column 5, line 7; and Column 5, lines 46-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the optimized path includes a pre-defined path portion; the motivation being so that the gateway can choose from pre-defined paths which path is optimal, thereby saving resources since the gateway does not need to generate different possible paths each time.

Referring to claim 5, Vargo et al disclose in Figure 1 a local PSTN (PSTN 106) coupled between the originating endpoint device (transmux 124) and the local audio interface (gateway 114), wherein the local audio interface is adapted to designate an identifier (address) associated with a destination audio interface and communicate the identifier to the originating endpoint device through the local PSTN, and the originating endpoint device is adapted to select the destination audio interface responsive to the identifier designated by the local audio interface. In preparation to transmit PSTN voice packets between PSTNs 106 and 108, the gateways 114 and 116 exchange their

respective gateway 114,128,116,130 addresses over the TCP/IP link. Refer to Column 4, lines 9-13. Originating gateway 114 communicates the identifier (gateway 116 address) to transmux 124 by appending the destination gateway address to PSTN voice packets. Transmux 124 uses the destination gateway address to send packets across Internet network 132 by including the destination gateway address in the packet. Refer to Column 4, lines 6-44 and Column 4, line 58 to Column 5, line 28.

Referring to claim 6, Vargo et al disclose in Figure 1 that the destination audio interface (gateway 116) is coupled to the destination endpoint device (transmux 126). Refer to Column 3, lines 58-60.

Referring to claim 7, Vargo et al disclose in Figure 1 a broadband telephony system, comprising:

A plurality of remote endpoint devices (transmux 124,126,134,136) coupled to a broadband data network (Internet network 132).

A plurality of remote PSTNS (PSTN 106,108) coupled to the plurality of remote endpoint devices, each remote endpoint device being coupled to one remote PSTN (indirectly through gateway), each PSTN being coupled to more than one remote endpoint device (indirectly through gateway and TCP/IP link 122), each remote endpoint device being coupled to one of a plurality of remote audio interfaces (gateway 114,116,128,130 through voice lines 118,120). Refer to Column 3, line 31 to Column 4, line 5.

An originating endpoint device (transmux 124) coupled between the broadband data network (Internet network 132) and a local audio interface (gateway 114) adapted

to communicate an audio signal, the originating endpoint device adapted to select a destination audio interface (gateway 116) for delivery of the audio signal, the destination audio interface being one of the plurality of remote audio interfaces. Refer to Column 4, lines 6-44.

A database (Figure 6, hashing table 606) coupled to the broadband data network (through transmux) and adapted to determine a path for the audio signal from the originating endpoint device (transmux 124) to the destination audio interface (gateway 116). Refer to the rejection of claim 1.

Vargo et al does not disclose that that database determines an *optimized* path. Refer to the rejection of claim 1.

Referring to claim 8, Vargo et al disclose that the database (Figure 6, hashing table 606) is adapted to uniquely correlating each remote audio interface (gateways 114,116,134,136) with one of the plurality of remote endpoint devices (transmux 124,126), and the optimized path includes a destination endpoint device wherein the destination endpoint device is one of the plurality of remote endpoint devices being correlated to the destination audio interface. Each remote audio interface (gateway) and endpoint device (transmux) is associated with each other. Refer to Column 4, lines 6-44. A hashing table 606 holds each of the transmux voice packets 144, each transmux voice packet 144 being bound for a different destination transmux. As shown in Figure 4, the originating transmux sends transmux packets comprising voice data 305, a sequence number 303, a destination PSTN address 204, and a destination gateway address 306. Refer to Column 5, lines 22-28 and Column 6, lines 24-34.

Referring to claim 9, refer to the rejection of claim 3.

Referring to claim 10, refer to the rejection of claim 4.

Referring to claim 11, refer to the rejection of claim 5.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over No. 6,674,745 to Schuster et al in view of U.S. Patent No. 6,873,616 to Fedyk et al.

Schuster et al disclose that the method further comprises:

Selecting a destination audio interface (device 14 or 16).

Routing a request (signaling message) from an originating gateway (ITG 18) to the registrar database (AMS 40) for access to the destination audio interface.

Determining an network path from the originating gateway to the destination audio interface, the optimized network path including a destination gateway (ITG 20), the destination gateway being one of the plurality of user-provided gateways associated with the regional telephone network (PSTN 24) associated with the destination audio interface. Refer to Column 2, lines 1-31.

Schuster et al does not disclose determining an *optimized* path.

Fedyk et al disclose that an exit gateway (Figure 1, G1) connected to a source end point (Figure 1, SEP 12) stores a database (Figure 2b). Each entry of the database identifies a cost associated with reaching different destinations through different gateways. The processor of the database selects the gateway through which a selected destination can be reached at the lowest cost. Refer to Column 2, lines 24-26; Column 4, line 31 to Column 5, line 7; and Column 5, lines 46-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to include determining an *optimized* path; the motivation being in order to choose the most optimal path to the destination, thereby saving resources such as bandwidth or cost and increasing system efficiency by choosing the fastest route with the least number of hops.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over No. 6,674,745 to Schuster et al in view of U.S. Patent No. 6,477,164 to Vargo et al.

Referring to claim 13, Schuster et al do not disclose that the method further comprises restricting use to the plurality of other users, of a user's gateway as a remote network-terminating gateway to a pre-determined maximum elapsed time within a periodic interval.

Vargo et al disclose in Figure 1 that at the originating gateway 114, a number of gateway subpackets are concatenated together to form a gateway voice packet 142. The gateway voice packet 142 is then sent to the originating transmux 124. The gateway subpackets may be sent to the originating transmux 124 after a predetermined period of time has elapsed, regardless of how many gateway subpackets have been concatenated. The originating transmux 124 then sends the packets across Internet network 124 to transmux 126 and then to destination gateway 116. Refer to Column 5, lines 5-21 and Column 6, lines 24-34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the method further comprises restricting use to the plurality of other users, of a user's gateway as a remote network-terminating gateway to a pre-determined maximum elapsed time within a periodic interval, the motivation in order to quickly process the packets from the

destination gateway even in the event that the network experiences congestion which may stall the transfer of packets to the destination gateway.

Referring to claim 14, Schuster et al do not disclose that the method further comprises restricting use to the plurality of other users, of a user's gateway as a remote network-terminating gateway to a pre-determined maximum number of calls.

Vargo et al disclose in Figure 1 that at the originating gateway 114, a number of gateway subpackets are concatenated together to form a gateway voice packet 142. The gateway voice packet 142 is then sent to the originating transmux 124. The transmux subpackets may be sent to the destination transmux 126 after a predetermined number of transmux subpackets are linked together. The destination transmux 126 then sends the packets to destination gateway 116. Refer to Column 5, lines 5-21 and Column 6, lines 24-34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the method further comprises restricting use to the plurality of other users, of a user's gateway as a remote network-terminating gateway to a pre-determined maximum number of calls; the motivation being in order to prevent an overload of packets on the gateway.

Allowable Subject Matter

8. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng
July 19, 2005

RICKY NGO
PRIMARY EXAMINER
7/19/05